

Attorney Docket No.: 3655/0300PUS1

PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant(s): AWASTHI

Conf. No.: 4696

Application No.: 10/674,637

Art Unit: 2617

Filed: 30 Sep 2003

Examiner:

CONTEE, JOY KIMBERLY

Title: SYSTEM AND METHOD FOR  
RECONNECTING DROPPED CELLULAR  
PHONE CALLS

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

DECLARATION SUBMITTED UNDER 37 C.F.R. § 1.131

I, Nikhil AWASTHI, declare as follows:

1. I am an inventor of the subject matter disclosed and claimed in the above-identified patent application.

2. I, in conjunction with Richard JENNER and Mark JONES, conceived of the invention recited in the claims prior to May 23, 2003. As evidence of prior conception, Exhibit A is presented herewith.

Exhibit A is a copy of an e-mail and an associated attachment, dated May 23, 2003, that I sent to outside patent counsel Thomas J. Onka, of Synnestvedt, Lechner & Woodbridge, L.L.P. The email and attachment were provided so that Mr. Onka could begin drafting above-identified patent application. The attachment specifically shows conception of the invention as claimed.

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3. I hereby declare that all statements made herein of my own knowledge are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.



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Nikhil AWASTHI

05/23/07.

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Date

EXHIBIT A

RE: Patenting FMA Features

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**Thomas J. Onka**

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**From:** Awasthi, Nikhil (Nikhil)  
**Sent:** Friday, May 23, 2003 9:15 AM  
**To:** Thomas J. Onka  
**Cc:** Jenner, Richard (richard)  
**Subject:** RE: Patenting FMA Features

Hi Tom,

CC: Richard Jenner. (Co-Author for this application)  
 Please find attached document for additional information.

Regards,  
 Nikhil <<Details of Enhanced Cellular Reconnect.doc>>

## **Details of Enhanced Cellular Cut-Off**

Cellular Cut-Off was introduced as a concept in DHD application to address the need to growing number of mobile customers. We feel that this concept is very valuable and we have not seen anybody using this in his product. Here in this document, First I will explain original "Cellular Cut-Off" functionality, which was shared in different forms with outside world [refer to email for detailed information.]. Secondly, I will identify problem with the original proposal and add enhancement to that. If we cannot patent original idea due to some statute, we should try to protect as much as possible for Avaya's use.

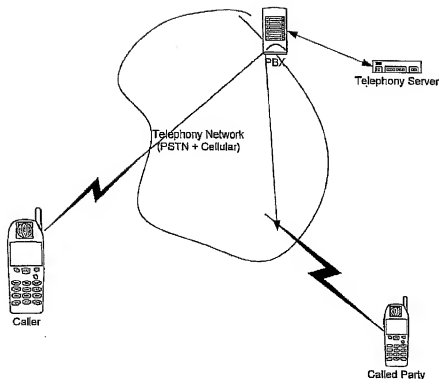
### **Original Concept**

What is cellular cut-off?

Cellular cut-off capability in the application detects call drop in the cell network (at least subscriber is on cell-phone) and tries to reconnect dropped calls. One simple implementation of such capability is shown below.

Scenario:

- 1- Caller calls subscriber's number.
- 2- Call is first routed to telephony server, where algorithm for cellular cut-off is implemented.
- 3- Telephony server calls out subscriber's cell-phone.
- 4- Connection between caller and subscriber is established.
- 5- At some point call drops, assuming due to network problems.
- 6- Cellular cut-off logic kicks-in. It plays announcement to the caller to stay on line, system is trying to reconnect subscriber.
- 7- Keeps on trying to reestablish the connection with the subscriber.



What is so great? Well, it adds value to product by adding more reliability to mobile connections. Connection is reestablished and caller doesn't have to dial-in again. It saves money for caller and enables completion of conversation.

What are deficiencies?

Nothing is perfect, and so is the detection process. Though algorithm implemented was very reliable, False alarm causes re-connection for the calls you intended to terminate. Algorithm has a problem when mobile subscriber joins a conference call.

What are enhancements?

- 1)- Enable and disable this feature in real time.
- 2)- Taking caller's feedback for reconnect, before trying to reconnect.
- 3)- Using intelligence in speech enabled systems.

Benefits?

- 1)- Ability to use this feature in conference.
- 2)- Avoid false alarms.

Enhancements in the architecture?

No enhancements in the deployment architecture of application required.  
Only application logic for handling cellular cut-off needs to be enhanced.

- 1)- Subscriber can enable and disable cellular cut-off while on the call via DTMF key or speech commands. It will reduce false alarms and enable subscriber to drop from conference calls.
- 2)- Instead of just playing announcement to the caller (third-party), application takes input from the caller if he wants to reconnect the call.
- 3)- For speech enabled systems, application can pick-up specific words like "bye" or "good-bye" and termination of call following such words can be treated as confirmation of call completion.

How it works?

